Situational Awareness Products: What do we have and where is it?

AWT 2013 Summer Experiment

Overview: All GOES-R image products can be found in /IMAGE/sat/area/goesR, model products in /GRID, and observations in /SURF_OBS. Instructions for locations of specific products is listed below:

GOES-R Simulated Satellite Imagery from the NSSL-WRF

```
IMAGE -> SAT -> area -> goesR -> simulated -> wrf_arw b08\_wv\_low b09\_wv\_mid b10\_wv\_high b11\_ir\_cldphase b12\_ir\_ozone b13\_ir\_clean b14\_ir b15\_ir\_dirty b16\_ir\_co2 moist\_conv backup\_b09\_wv\_low b13\_ir\_clean
```

**To access the forecast imagery click the Range/Int button on the Data Selection screen. Then choose the following day (e.g. if it's July 29th, choose July 30th).

GOES-R Simulated Satellite Imagery from the NAM_Nest

**To access the forecast imagery click the Range/Int button on the Data Selection screen. Then choose the following day (e.g. if it's July 29th, choose July 30th).

Nearcasting Model

```
GRID -> nrcast -> [time] -> nrcast

PW5: 500mb_Mean_lyr_precip_water

PW7: 700mb_Mean_lyr_precip_water

PWD: Vertical_precip_water_diff

TE5: 500mb_Mean_lyr_theta-e

TE7: 700mb_Mean_lyr_theta-e

TED: Vertical_theta-e_diff
```

GOES-R Convective Initiation

```
IMAGE -> SAT -> area -> goesR -> convection -> convinit -> (east|west)
```

GOES-R Cloud Top Cooling

```
GRID -> (cinit|cinitw) -> [time] -> cinit -> CTCINST: Cooling_rate
```

GOES-R Cloud Top Cooling – SRSOR version

```
GRID -> (cinit_srsor) -> cinit -> CTCINST: Cooling_rate
```

GOES-R Overshooting Top Detection/Magnitude

```
GRID -> (cinit|cinitw) -> [time] -> cinit -> Overshoot_detection
GRID -> (cinit|cinitw) -> [time] -> cinit -> Overshoot_magnitude
```

GOES-R Tropical Overshooting Tops (Magnitude)

```
SURF_OBS -> (TOTS_E|TOTS_W|TOTS_ATL)
```

GOES-14 Super Rapid Scan (Experimental) 1-minute imagery

```
IMAGE -> SAT -> area -> goes14

vis1km

ir4km

wv4km

backup vis1km
```

GOES-R Cloud Algorithms

Pseudo Geostationary Lightning Mapper

```
IMAGE -> SAT -> area -> goesR -> convection -> lightning

**VGF needed for range rings: VGF -> AWT -> pglmRangeold.vgf
```

GLD360 (Gridded Lightning Density)

```
Density: GRID -> GLD Point: MISC -> LTNG
```

**In the MISC -> LTNG the GLD is classified 'offshore' and the NLDN is classified 'domestic'

Earth Networks Lightning

```
Density: GRID -> entln_conus -> (date_time) -> ltg -> 10min_ltg_density
Storke: GRID -> entln_conus -> (date_time) -> ltg ->
```